REMARKS-General

1.   The newly drafted independent claims 11 to 13 incorporates all structural limitations of the original claims 1 and 2, and includes further limitations previously brought forth in the disclosure. No new matter has been included. All new claims 11 to 13 are submitted to be of sufficient clarity and detail to enable a person of average skill in the art to make and use the instant invention, so as to be pursuant to 35 USC 112.

Response to Rejection of Claims 5-10 under 35USC112

2.   The applicant submits that the newly drafted claims 11 to 13 particularly point out and distinctly claim the subject matter of the instant invention, as pursuant to 35USC112.

3.   The examiner alleges the specification of the instant invention is lacking in reciting any steps to carry out the process in which the specification merely recites a device with keys.

4.   The applicant respectfully submits that the input keys of the instant invention imply the way for the user to input for computation.

5.   The author of Ref. 1 (p-20 of Chapter 1, Introduction to Computers) stated that:

"All computers contain the same basic components."

6.   The authors of Ref. 2 stated that:

"Computer: An electronic device capable of interpreting and executing programmed commands for input, output, computation, and logic operations." And that,

"The trend in data entry has been toward entering data more quickly and effectively."

PS: Reference 1: **(maran illustrated) Computers**, by www.maran.com, 2006.

Reference 2: **Computers**, by Larry and Nancy Long, 8th Edition, Prentice Hall, 2001.

Regarding to Rejection of Claims 5-10 under 35USC102

7.   Pursuant to 35 U.S.C. 102, "a person shall be entitled to a patent unless:

(b) the _**invention**_ was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

8.   In view of 35 U.S.C. 102(b), it is apparent that a person shall **not** be entitled to a patent when his or her **invention was patent** in this country more than one year prior to the date of the application for patent in the United States.

9.   However, the Bernath patent and the instant invention are **not the same invention** according to the fact that the independent claim 5, 7, or 9 of the instant invention does not read upon the Bernath patent. Apparently Bernath fails to teach the distinctive features of the instant invention.

10.   The applicant respectfully explains the terms and background of the instant invention. "**Language**" is defined in Webster's Dictionary in many ways, one way it is defined as: **"any means of expressing or communicating, as gestures, signs, animal sounds, etc."**

11.   Indo-European languages are essentially based on phonetics with multiple syllables; their spoken and written words differ little except in cases where the written words have silent alphabets.

12.   Chinese style languages which include mainly Chinese, and its derivatives of Japanese and Korean languages, are not strict phonetic languages. Written words of these languages dictate over the phonetic expressions. Which means all contracts must be in writing. These facts are known to every student of China, Japan and Korea. Chinese style languages have large number of words in identical sound, while their written words are distinctive from one another. Homonyms in Chinese written words are very rare, as compared to the hundreds of homonyms occurring in every day English written and spoken words.

13.   When one talks about Chinese written words, the facts of the following paragraphs are intrinsically embodied within this language. It does not need extended explanation. The facts are reiterated here for clarification purpose regarding this patent application only.

14.   Foundation of Chinese written words started as pictures and then they were simplified into meaningful multi-stroke symbols. Most Chinese style written words have the whole calligraphy or a part of the calligraphy for indicating the category that an individual word belongs to, such as that 枫 (maple) belongs to the tree category, same principle applies to a fish, an insect, an action involving the use of a hand, etc. This specific part provides a pictorial effect of its group association; it does not contribute to a phonetic value, which is provided by the remaining portion in the word's calligraphy. All Chinese Dictionaries arrange words according to this principle. This basic concept of combination of pictorial specific symbol for Chinese written word for group classification and a phonetic part written in English alphabets forms the foundation of this invention. This was presented on the upper portion of page 2 of the "Summary of Present Invention" of this application.

15.   "**Transliterate**" is defined in Webster's Dictionary as: "**to write or spell in the characters of another alphabet that represent the same sound or sounds**".

16.   Aside from all the non-essential descriptions presented in his patent, **Bernath's invention was based on a method of <u>combining two parallel transliteration spellings</u> (Fig. 3: SELECTED CHINESE CHARACTERS AND THEIR PHONETIC...)** of Chinese words to achieve inputting Chinese written words. Bernath's method requires constant human intervention to the correct Chinese written word from a list of words of identical sound, not to mention the even bigger pool of similar sounds. It is this human factor that this present invention is aimed to eliminate, so that automation in Chinese style words inputting can be realized.

17.   **Regarding the term "Chinese Character", used by Bernath; and "specific Chinese character" used in this invention's "specific Chinese character keys".**

18.   A **Chinese written word** (or **Kanji, 汉字 in Japanese wording**) has been loosely called by Western linguists as **a Chinese character**. (Reference 3 , an

authoritative writing on Chinese language study for teaching conversational Chinese to non-Chinese speaking people, it had quoted "**600 characters introduced in Read Chinese 1 and 2**" as the most fundamental Chinese written words. Its phonetic presentation are in **Yale Romanization of Chinese characters**).There exists now about a total of 45,000 independent Chinese characters (or written words), that are distinctive visually, but phonetically much of these written words sound the same.

19.   Japanese and Korean **written words** are also routinely called by Western linguists as Japanese and Korean characters. **Ref. 4**, which has been and still is the authoritative writing of its kind for thirty years. This dictionary selected 5,000 basic **Japanese characters** and a total of accompanied derivative phrases of 70,000 entries. Many of these Japanese characters are identical Chinese written words that they are pronounced usually in different phonetic ways from original Chinese spellings. (Reference 4: The Modern Reader's "Japanese-English Character Dictionary", by A. N. Nelson, Ph.D., Second Ed., Charles E. Tuttle Co. Publishers of Rutland Vermont, Tokyo, Japan, 1969.)

20.   Bernath used one type **Romanized Chinese characters** pronunciation routine to mean **Chinese written words** (or **Kanji, 汉字** in Japanese wording). In his encoding rules described in the DETAILED DESCRIPTION of his invention, Bernath stated that:

21.   Rule 1: "IN THE PROCESS OF TEXT ENCODING, THE ENTRY OF THE **PHONETIC DATA OF A CHINESE CHARACTER** ... WHICH IS THE **PRONUNCIATION** OF THAT CHARACTER....."

22.   This non-precise term **"Chinese character"** quoted by Bernath meant **"a Chinese written word in graphic form" (Fig. 3 of Bernath's patent)**, and there exists about 45,000 of them.

23.   **The "specific Chinese character keys"** used in this invention as depicted in **Fig. 2 of this present invention are symbols for classification** of actual Chinese words, these symbols are all silent in the actual inputting Chinese written words whose sound values are written in English alphabets following this symbols. All Chinese students are familiar with these classification symbols in their traditional calligraphically writings. For example:

Key -01   日 = a symbol indicating light, time;

Key -02   文 = a symbol indicating culture, civilization;

Etc.

24.   Rule 2: "...**CHARACTERS** ARE ENCODED IN BLOCKS..." Here "these characters" are individual Chinese written words in graphic form each with a single syllable sound, and there exists about 45,000 of them. The pictorial **"specific lettering symbols"** used in this invention as listed in Fig. 2 are different, they are used for a Chinese written word's meaning classification, and they are silent in spelling.

25.   Rule 3: "A PHONETICALLY UNIQUE **CHARACTER** BLOCK ..." Here "character" means an individual Chinese written word with single syllable sound, and are distinctively different from the pictorial **"specific lettering symbols"** used in this invention as listed in Fig. 2.

26.   Rule 4: "A PHONETICALLY NOT UNIQUE **CHARACTER** BLOCK ..." Here "character" means an individual Chinese written word with single syllable sound, and are distinctively different from the pictorial **"specific lettering symbols"** used in this invention as listed in Fig. 2.

27.   Furthermore, the **special Chinese symbols of the Bernath keyboard are "Chinese National Phonetic Alphabet** (altogether 37 symbols, **Fig. 1A, Bernath patent)**. These symbols are for use to spell out Chinese words in parallel with the Romanized pinyin method.

28.   "**Transliterate**" is defined in Webster's Dictionary as: **"to write or spell in the characters of another alphabet that represent the same sound or sounds".**

29.   Bernath proposed one method of Chinese words inputting using a keyboard **(Fig. 1A)** based on transliteration results with official phonetically Romanized Mandarin. This method had been in use for decades. It was first attempted as a conversational means for foreigners to learn to speak Chinese without having to first learn Chinese written words. Such as the Yale University "Read Chinese" programs (Ref. 3), this method was officially chosen for word processing in People's Republic of China. This

method needs a human operator to select one correct Chinese word from a long list of similarly sounded Chinese words. (Reference 3: **Read Chinese, Book Three**, by Fang-yu-Wang and Richard Chang, Second Ed. 1965, Far Eastern Publications, Yale University.)

30.　　Following examples are selected from Microsoft word software Romanized words approved by Chinese government. It shows the necessity of intervention of human operators:

Romanized Chinese word	Corresponding multiple Mandarin **words of identical sound**, and in Chinese and English (in parenthesis)
1. dai	代(instead), 带(bring, or belt), 戴(to wear on head), 贷(loan), 袋(bag)....
2. di	地(the ground), 弟(younger brother), 帝(an emperor), 递(deliver)....
3. dian	电(electricity), 店(shop), 殿(formal hall), 垫(cushion), 奠(offer to the dead)....
4. shen	身(body), 绅(gentleman), 深(deep), 伸(extend), 砷(arsenic)....
5. shi	师(teacher), 狮(lion), 施(to give aid), 诗(poem), 尸(corps)....
6. yu	(rain), 语(language), 羽(feather), 禹(an ancient emperor), 宇(universe)....
7. zhi	直(straight), 知(understand), 支(subsidiary), 稚(naive), 枝(branch)....

31.　　Bernath proposed a second method of Chinese words input based on transliteration results with special Chinese-style National Phonetic Alphabet (altogether 37 symbols, **Fig. 1A**). This method had been in use for nearly a century. It was intended to standardize pronunciation of Chinese national tone in speech. As China had one version of written words but these words were spoken in many dialogues at different regions of China's vast territory. This method is currently adopted as one way of inputting for Chinese word process used in Taiwan, where it is used in parallel with the

Romanized pinyin method. **This method is not effective and it is not used in China.** This method also needs a human operator to select one correct Chinese word from a long list of similarly sounded Chinese words.

32.   Following examples are selected from Chinese Standard dictionary approved by Chinese government in Taiwan. It shows the necessity of intervention of human operators to select the intended words:

Word in Chinese-style National alphabet	Corresponding multiple Chinese **words of identical sound**, and their meanings in Chinese and English (in parenthesis)
"一" sound as: yih,	一(one), 衣(clothes), 医(to heal), 益(benefit),抑(discourage), 译(translate)....
"厶" sound as: s	司(a bureau), 思(think), 私(private), 撕(tear apart), 丝(silk)....
"彳", no corresponding sound element in any alphabets	痴(foolish), 弛(slack), 驰(riding fast), 嗤(to jeer)....

33.   With this detailed in-depth differentiation between this present invention and that of Bernath's patent, we believe this invention is simple in hardware construction, and more reliable for inputting data execution. The present invention is aimed to fast speed automate inputting process by eliminating human interface. Each inputting Chinese style written word is in unique combination of a pictorial symbol for the word's meaning classification together with a Romanized phonetic portion for pronunciation.

34.   We conclude as mentioned in page 2 of the section of Summary of The Present Invention:

"The principle object of this invention is to provide means of **high speed automated processing** of Chinese-style languages...The Chinese-type words are to be

produced phonetically with alphabets together with these new Chinese symbols. **The purpose of these new symbols is to differentiate the large number of phonetically similar words in the Chinese-style languages**...Another purpose of this device is to further improve the efficiency in processing data with Chinese-style language input information. This can be accomplished by using data processing devices based on this invention in conjunction with communication software derived from the **proprietary TRILAN vocabularies**..."

35.   The above extended explanations for reviewing of Chinese-style words in general and Bernath ideas on Chinese word processing in particular, are to substantiate the distinction of the present approach using combination of Chinese pictorial classification symbols and the phoneticized portion using English alphabets to produce unique Chinese written words. There is no deviation in the art for implementation of this invention.

Reduce to Practice

36.   Following examples show how Romanized Chinese written words of identical sound can be effectively differentiated from one another by using this inputting device. These words of Romanized Chinese written in English alphabets together with the specialized Chinese symbol characters are taken from "TRILAN" TM, a proprietary copyrighted compilation; it does not belong to this patent application. This demonstrates this invented device is able to facilitate that software to achieve full automation of inputting Chinese style languages in high speed data processing.

Word in Chinese-style National alphabet	Corresponding multiple Chinese words of identical sound, and their distinguishable meanings in Chinese and English
"一" sound as: yih,	一(#yi, one), 衣(衤 yi, clothes), 医(to heal), 益($yi, benefit).... 抑(扌 yi, discourage), 译(訁 yi, translate)....

37.   These distinguishable ability of inputting Chinese written words will eliminate the intermediate steps required a human operator for precise Chinese written words selection to achieve full automation

38.   It is worth to mention that Bernath's device using two parallel phonetic (transliteration) methods in picking correct Chinese written words as shown in Figs. 1A and 3. This method that was used by poets in the past, is a method of arts, it cannot serve for exact scientific applications.

39.   In conclusion, the applicant respectfully submits that the Bernath fails to teach and anticipate the uses the specific Chinese character keys of the instant invention. More particularly, the specific Chinese character keys are classified and grouped with actual meaning. For Key -01, 日 has the actual meaning of light, time. key -02, 文 has the actual meaning of culture, civilization. For key -03, 方 has the actual meaning of direction, a state of being, and a process. For key -04, 口 has the actual meaning of food, speak, actions associated with mouth. For key -05, 亻 has the actual meaning of people. For key -06, 彳 has the actual meaning of action, movement. For key -07, 力 has the actual meaning of the use of force. For key -08, 电 has the actual meaning of phenomenon associated with electricity. For key -09, 阝 has the actual meaning of hearing, sound. For key -10, 目 has the actual meaning of viewing with eyes. For key -11, 力 has the actual meaning of body parts. For key -12, 扌 has the actual meaning of actions associated with hand. For key -13, ⁺⁺ has the actual meaning of grass, vines, etc. For key -14, 木 has the actual meaning of wood, wood products. For key -15, 氵 has the actual meaning of water, liquid. For key -16, 火 has the actual meaning of fire, heat. For key -17, 工 has the actual meaning of labor, industrial products. For key -18, 金 has the actual meaning of metal, metal products. For key -19, 土 has the actual meaning of soil, dirt, place. For key -20, 石 has the actual meaning of rock, mountain. For key -21, 纟 has the actual meaning of fabrics, organization. For key -22, 毛 has the actual meaning of wool, hair. For key -23, 礻 has the actual meaning of worship, respect. For key -24, 衤 has the actual meaning of covering. For key -25, 忄 has the actual meaning of mental activities. For key -26, 医 has the actual meaning of medical, health. For key -27, 辶 has the actual meaning of transportation, destination, etc. For key -28, 尸 has the actual meaning of building, rooms. For key -29, 虫 has the actual meaning of insects and smaller crawling animals. For key -30, 犭 has the actual meaning of four feet land animals. For key -31, 气 has the actual meaning of air gas,

aerial activities. For key -32, 羽 has the actual meaning of feather, flying activities. For key -33, 卄 has the actual meaning of measurements. Bernath fails to teach and anticipate the use of the keys to input the actual meaning of the Chinese word.

40.   Accordingly, Bernath fails to anticipate or suggest the data process and system for producing Chinese-style language character of the instant invention as claimed in claims 11 to 13.

41.   Applicant believes that for all of the foregoing reasons, all of the claims are in condition for allowance and such action is respectfully requested.

The Cited but Non-Applied References

42. The cited but not relied upon references have been studied and are greatly appreciated, but are deemed to be less relevant than the relied upon references.

43. In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration and withdrawal of the objection are requested. Allowance of claims 11 to 13 at an early date is solicited.

44. Should the Examiner believe that anything further is needed in order to place the application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,
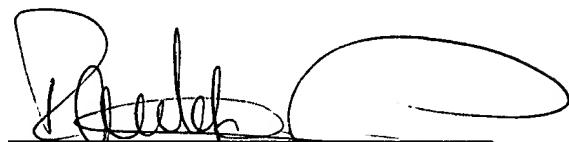
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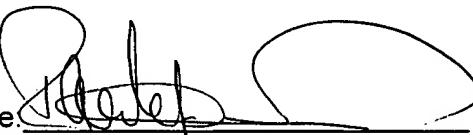
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